

**Notice of Allowability**

Application No.

09/737,297

Examiner

Rita Mitra

Applicant(s)

BERRY ET AL.

Art Unit

1653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/26/2004.
2. ☒ The allowed claim(s) is/are 6,9,10 and 13-17.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☒ to Paper No./Mail Date 3/25/04.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## DETAILED ACTION

### *Status of the Claims*

Applicants' amendment and reply in response to office action dated March 25, 2004 filed on July 26, 2004 is acknowledged. Claims 4, 5, 7, 11 and 12 have been canceled. New claims 13-17 have been added. Claims 1, 2, 3 and 8 were withdrawn from consideration in the office action dated March 25, 2004. Therefore, claims 6, 9, 10 and 13-17 are currently pending and under consideration.

### *Response to Amendments*

The rejection of claims 6 and 9 under **35 U.S.C. 101(nonstatutory)** is withdrawn in view of applicants' amendment to claims 6 and 9., and cancellation of claims 4, 5, 7, 11 and 12.

The rejection of claims 4, 5, 7, 11 and 12 under **35 U.S.C. 101 (nonstatutory)** is moot because these claims have been canceled.

The rejection of claim 6 under **35 U.S.C. 112, first paragraph** is withdrawn in view of amendment to the claim.

The rejection of claim 7 under **35 U.S.C. 112, first paragraph** is moot because this claim has been canceled.

The rejection of claims 6 and 10 under **35 U.S.C. 112, second paragraph** is withdrawn in view of amendment to the claims.

The rejection of claims 4, 7, 11 and 12 under **35 U.S.C. 112, second paragraph** is moot because these claims have been canceled.

The rejection of claims 4 and 12 under **35 U.S.C. 102** as being anticipated by Xu et al. is moot because claims 4 and 12 have been canceled.

The rejection of claims 4 and 5 under **35 U.S.C. 102** as being anticipated by Griffith et al. is moot because claims 4 and 5 have been canceled.

The rejection of claims 9 and 10 under **35 U.S.C. 103** as being unpatentable over Griffith et al. is withdrawn in view of amendment to these claims.

**An Examiner's Amendment** to the record appears below. Should the changes and/or

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additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

***Examiner's Amendments to the Specification***

Continuing data has been entered on page 1, line 1, which reads as:

This application claims benefit of a foreign (United Kingdom) application 9929696.4 filed on December 15, 1999.

Abstract has been corrected to read as:

The invention relates to a process for preparing [a novel anti-freezepeptide] an anti-freeze peptide and to the peptides obtained from bacteria from an aqueous low-temperature environment, such as *Marinomonas protea* and a [novel] *Pseudomonas species*. These anti-freeze peptides can suitably be incorporated in frozen food products such as frozen vegetables and frozen confectionery such as ice-cream.

***Examiner's Amendments to the Claims***

Non-elected claims 1-3 and 8 have been canceled.

Claims 6 and 9 have been amended to read as:

6. (Amended) An [Isolated] isolated protein having anti-freeze activity and having an [N terminal] N-terminal amino acid sequence as [shown] set forth in SEQ ID NO: 3. [,said protein being isolated.]
9. A [Food] food product comprising a protein according to claim 6.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Gerard McGowan, Jr. on September 29, 2004.

### ***Reasons for Allowance***

The following is an examiner's statement of reasons for allowance:

The prior art of record does not teach or suggest a protein isolated from a bacterial culture of *Marinomonas* species having anti-freeze activity, wherein said *Marinomonas* species comprising a 16S rRNA gene having at least 95% sequence identity with the corresponding sequence from *Marinomonas protea* deposited under Accession NO: NCIMB 41006. Further, the prior art of record also does not teach an isolated protein having anti-freeze activity and having an N-terminal amino acid sequence as set forth in SEQ ID NO: 3, wherein the proteins can be used in frozen food products, such as frozen vegetables and frozen confectionery.

The prior art of record also does not teach or suggest a protein isolated from a bacterial culture of *Pseudomonas* species having anti-freeze activity, wherein said *Pseudomonas* species deposited under Accession NO: NCIMB 41076.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Claims 6, 9, 10, 13-17 are allowed.

### ***Inquiries***

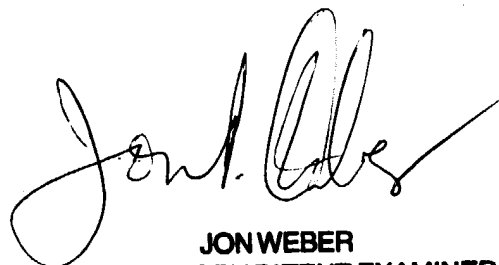
Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rita Mitra whose telephone number is (571) 272-0954. The Examiner can normally be reached from 9:30 a.m. to 6:30 p.m. on weekdays. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Dr. Jon Weber,

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can be reached at (571) 272-0925. Papers related to this application may be submitted to Technology Center 1600 by facsimile transmission. Papers should be faxed to Technology Center 1600 via the PTO Fax Center. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Fax Center number is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-0547.



Rita Mitra, Ph.D.  
September 27, 2004



**JON WEBER**  
**SUPERVISORY PATENT EXAMINER**